PCP	Removed								ECAC+	
AOM19.3	**Full Rolling ASM/ATFCM Process and ASM Information Sharing**									
REG	**ASP**	**MIL**	**APO**	**USE**	**INT**	**IND**	**NM**	**MET**	**AIS**	**USP**

Subject matter and scope

The full rolling ASM/ATFCM process focuses on improving airspace planning. It shall ensure a continuous, seamless and reiterative airspace planning and allocation based on airspace requests at any time period within strategic (level1), pre-tactical (level 2) and tactical (level 3) ASM levels; the process will also support the deployment of airspace configurations (as described in objective AOM19.4). It will result in a rolling process, supporting the enhancement of the daily Network Operations Plan (NOP). This will allow airspace users to better benefit from changes in airspace structures closer to the event.
This rolling process will be supported by the sharing of civil-military airspace data and by continuously updating airspace reservation (ARES) information with demand information among the authorized operational stakeholders and Approved Agencies in order to enhance the coordination of cross-border operations and/or cross-border areas, and to optimise the whole network operations based on the mature and most correct information.

ASM information sharing addresses the required system support improvements able to ensure a seamless and consistent data flow and their management in the frame of the enhanced collaborative decision making (CDM) process. It includes requirements aiming to improve the notification to airspace users based on automated data exchange processes.
ASM procedures and data-sharing shall enable dynamic management of airspace both in a free and fixed route environment.

NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

Applicability Area(s) & Timescale(s)

Applicability Area			
Timescales:	**From:**	**By:**	**Applicable to:**
Initial operational capability	01/01/2014		Applicability Area
Full operational capability		01/01/2022	Applicability Area

References

European ATM Master Plan

OI step -	[AOM-0202]-Enhanced Real-time Civil-Military Coordination of Airspace Utilisation								
	Enablers -	AAMS-06a	AAMS-08 AOM19.5	AAMS-09 AOM19.5	AAMS-10a AOM13.1	AAMS-15	AIMS-06	AIMS-21	AIMS-22
		PRO-184							
OI step -	[AOM-0202-A]-Automated Support for strategic, pre-tactical and tactical Civil-Military Coordination in Airspace Management (ASM).								
	Enablers -	AAMS-06b AOM19.5	AAMS-09a AOM19.5	AAMS-11	AIMS-06	ER APP ATC 77 AOM19.4, AOM19.5	MIL-0502	NIMS-42	PRO-011
		PRO-024	SWIM-APS-02a	SWIM-APS-03a	SWIM-INFR-05a	SWIM-NET-01a			

Legend:	WXYZ-001	Covered by SLoA(s) in this objective	WXYZ-002	Covered by SLoA(s) in another objective	WXYZ-003	Not covered in the Implementation Plan
			zzz	Objective covering the enabler		

Applicable legislation

- Regulation (EC) No 2150/2005 of 23 December 2005 on Implementation and Application of the Flexible Use of Airspace
- Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project

Essential Operational Changes

- none -

SESAR Solution

#31 - Variable profile military reserved areas and enhanced (further automated) civil-military collaboration

ICAO GANP - ASBUs

AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing

- none -	

Deployment Programme

- none -	

European Plan for Aviation Safety

- none -	

Operating Environments

En-Route
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	By
AOM19.3-ASP01	Adapt ASM systems to support a full rolling ASM/ATFCM process	01/01/2014	01/01/2022
AOM19.3-ASP02	Implement procedures and processes for a full rolling ASM/ATFCM process	01/01/2014	01/01/2022
AOM19.3-USE01	Adapt airspace users systems to improve ASM notification process	01/01/2014	01/01/2022
AOM19.3-USE02	Implement procedures in support of an improved ASM notification process	01/01/2014	01/01/2022
AOM19.3-NM01	Adapt NM systems to support a full rolling ASM/ATFCM process	01/01/2014	01/01/2022
AOM19.3-NM02	Implement procedures and processes for a full rolling ASM/ATFCM process	01/01/2014	01/01/2022
AOM19.3-NM03	Improve ASM notification process	01/01/2014	01/01/2022

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives

Expected Performance Benefits

Safety:	Improved through better co-ordination of civil and military airspace needs at the European Network level. Potential gains through more efficient airspace allocation and better knowledge of traffic environment, common situational awareness, and some enhancement through reduction in controller workload.
Capacity:	Increased through better utilization of airspace resources within and across airspace boundaries leading to reduction of flight delays.
Operational Efficiency:	Increased through the availability of more optimum routes/trajectories allowing lower fuel burn.
Cost Efficiency:	-
Environment:	Emissions reduced through the use of more optimum routes/trajectories.
Security:	-

Detailed SLoA Descriptions

AOM19.3-ASP01	Adapt ASM systems to support a full rolling ASM/ATFCM process	From: 01/01/2014	By: 01/01/2022
Action by:	**ANS Providers**		
Description & purpose:	Implement the following actions supporting a full rolling ASM/ATFM process: - System improvements related to new AUP template; - System changes for a full management of airspace structure via AUP/UUP; - System changes for initial CDM.		

AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing

Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - LARA (Local and sub-Regional Airspace Management Support System) Url : https://www.eurocontrol.int/software/local-and-sub-regional-airspace-management-support-system EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
ATM Master Plan relationship:	[AAMS-11]-ASM support systems enhanced to exchange real-time airspace status updates		
Finalisation criteria:	1 - ASM systems have been adapted.		
AOM19.3-ASP02	**Implement procedures and processes for a full rolling ASM/ATFCM process**	From: 01/01/2014	By: 01/01/2022
Action by:	**ANS Providers**		
Description & purpose:	Develop and implement the following processes supporting a full rolling and dynamic ASM/ATFCM process: - Process for a full management of airspace structure via AUP/UUP; - Process for initial CDM.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
ATM Master Plan relationship:	[PRO-011]-ASM Procedures to ensure that the change in airspace availability is promulgated through SWIM and reflected in the NOP [PRO-024]-ASM Procedures related to real-time (tactical) ASM level III information exchange		
Finalisation criteria:	1 - Processes have been implemented		
AOM19.3-USE01	**Adapt airspace users systems to improve ASM notification process**	From: 01/01/2014	By: 01/01/2022
Action by:	**Airspace Users**		
Description & purpose:	Implement the following actions at airspace users' operations centers to enable an improved ASM notification process: - System changes for full management of AUP/UUP airspace structure via B2B service.		

AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing

Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
Finalisation criteria:	1 - Systems have been adapted to enable an improved ASM notification process.		
AOM19.3-USE02	**Implement procedures in support of an improved ASM notification process**	From: 01/01/2014	By: 01/01/2022
Action by:	**Airspace Users**		
Description & purpose:	Develop and implement procedures in support of an improved ASM notification process.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
Finalisation criteria:	1 - Procedures in support of an improved ASM notification process have been implemented.		
AOM19.3-NM01	**Adapt NM systems to support a full rolling ASM/ATFCM process**	From: 01/01/2014	By: 01/01/2022
Action by:	**NM**		
Description & purpose:	The following system upgrades supporting a full rolling ASM/ATFM process to be performed by the Network Manager: - System upgrade supporting a full rolling ASM/ATFCM and dynamic ASM/ATFCM process; - System changes supporting rolling AUP; - Full implementation of new AUP template; - Rolling UUP for Procedure 3 (ad-hoc allocation - Procedure 3 as defined in the ERNIP Part 3 - ASM Handbook); - System changes for initial implementation of FUA/EU restriction and FPL Buffer Zone (FBZ): - - System changes for initial CDM; - System changes relevant to CDM for FRA (Free Route Airspace) impact assessment on network; - Systems adapted to continuously exchange ASM information; - Improve NM system allowing interoperability with stakeholders systems via B2B.		

AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing

Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
ATM Master Plan relationship:	[NIMS-42]-NM systems enhanced to receive, process and display real-time tactical (ASM level III) airspace usage information		
Finalisation criteria:	1 - NM systems have been adapted .		
AOM19.3-NM02	**Implement procedures and processes for a full rolling ASM/ATFCM process**	From: 01/01/2014	By: 01/01/2022
Action by:	**NM**		
Description & purpose:	The following processes to be developed and implemented by the Network Manager in coordination with the concerned stakeholders: - Process supporting a full rolling ASM/ATFCM and dynamic ASM/ATFCM process; - Process for initial implementation of FUA/EU restriction and FPL Buffer Zone (FBZ) in NM system and interoperability with local/sub-regional ASM support systems; - Process for a full management of airspace structure AUP/UUP; - Process for initial CDM; - Process relevant to CDM for FRA impact assessment on network.		
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-112 - EUROCONTROL Specification for the application of the Flexible Use of Airspace (FUA) - Edition 1.1 / 01/2009 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-application-flexible-use-airspace-fua EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements		
ATM Master Plan relationship:	[PRO-011]-ASM Procedures to ensure that the change in airspace availability is promulgated through SWIM and reflected in the NOP [PRO-024]-ASM Procedures related to real-time (tactical) ASM level III information exchange [PRO-184]-ASM Procedures related to Dynamic co-operative management of the airspace		
Finalisation criteria:	1 - Processes have been implemented by NM in coordination with concerned stakeholders.		
AOM19.3-NM03	**Improve ASM notification process**	From: 01/01/2014	By: 01/01/2022

AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing

Action by:	**NM**
Description & purpose:	The following actions supporting an improved ASM notification process to be taken by the Network Manager: - Improvements to the European AUP/UUP and updates (EAUP/EUUP) including: . Harmonisation of areas notifications; . Harmonise cross border CDRs (Conditional Routes) notifications. - Graphical display of AUP/UUP on NOP Portal.
Supporting material(s):	EUROCONTROL - NOP Portal User Guide - Edition 21.5-119 Url : https://www.eurocontrol.int/sites/default/files/content/documents/nm/network-operations/user-guides/nop-portal-user-guide-current.pdf EUROCONTROL - European Route Network Improvement Plan (ERNIP) Part 3 - Airspace Management Handbook - Guidelines for Airspace Management - 5.5 / 11/2017 Url : https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-part-3 EUROCONTROL - Advanced FUA Concept - Edition 1.0 Url : http://www.eurocontrol.int/sites/default/files/publication/files/advanced-fua-concept-v1.0-sept-2015.pdf EUROCONTROL - SPEC-179 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part II ASM to ASM Systems Interface Requirements - 1.0 / 01/2020 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements EUROCONTROL - SPEC 166 - EUROCONTROL Specification for Airspace Management (ASM) Support System Requirements supporting the ASM processes at local and FAB level Part I - Baseline Requirements - Edition 1.0 / 09/2017 Url : https://www.eurocontrol.int/publication/eurocontrol-specification-airspace-management-asm-support-system-requirements
Finalisation criteria:	1 - Processes have been implemented by NM.